

PERCEIVED MAGNITUDE OF UNEMPLOYMENT: A DARK HORSE IN THE LITERATURE ON PUBLIC ATTITUDES TOWARDS GOVERNMENTAL RESPONSIBILITIES TO THE UNEMPLOYED?

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ABSTRACT

In this article, we propose a new variable in the formation of individual attitudes towards governmental responsibilities to the unemployed – the perceived magnitude of unemployment. Our choice is based on the argument that people's reactions are strongly influenced by subjective meanings ascribed to social realities. We apply a multilevel analysis approach and mainly use the European Social Survey (2008). Results show that the perceived magnitude of unemployment positively influences public attitudes towards governmental responsibilities to the unemployed, when corrected for a series of relevant individual and national characteristics. Moreover, of all tested measures of actual unemployment rates, only the long-term unemployment rate has a significant effect on attitudes towards governmental responsibilities to the unemployed. Interestingly, this effect is negative, which raises questions about how the social realities of unemployment translate into perceptions of unemployment.

INTRODUCTION

During the past decades, the European politics of welfare state retrenchment have prompted discussions about welfare state recalibration and the extent to which governments should exercise their welfare responsibilities (Hemerijck 2012). Moreover, uncurbed unemployment rates in Europe have stimulated debates about the ways states should cope with this problem. One way to find a “golden mean” for the extent to which governments should provide welfare provisions is to consult the public at large. According to Schumpeter (1994, p.12), “attitudes are coins that do not readily melt.” So, it could be stated that society has an established opinion, which should be taken into account when governments design welfare policies. That is, public perceptions may indicate how much social legitimacy the welfare state has in supporting needy groups. In the case of unemployment, an analysis of public perceptions is highly relevant; 36% of European respondents pointed to unemployment as the main national concern (Eurobarometer 2007). Forty per cent of the same Eurobarometer respondents indicated that unemployment is also the main worry for the next generation.

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It is particularly interesting to analyse public attitudes towards welfare provisions for the unemployed. Due to comparatively high unemployment rates in recent decades, the unemployed are one of the neediest groups in Europe, being highly dependent on social provisions. However, despite being very needy, society sees the unemployed as one of the least deserving groups in need, with only immigrants perceived as less deserving than the unemployed (van Oorschot 2006). This mismatch-situation stimulates thoughts on the key determinants influencing public attitudes towards welfare support for the unemployed in European countries.

A solid number of studies have already been dedicated to analysing public support for the welfare state in general, as well as attitudes towards welfare provisions for the unemployed. They have mainly been based on the idea that preferences for governmental intervention are influenced by individual interests, ideological dispositions and values, and institutional arrangements (for a general review, see Gevers et al. 2000). However, a considerable share of inter-individual and inter-country variation in public support for these government provisions remains unexplained (van Oorschot and Meuleman 2012a). This unexplained variation encourages research with a focus on identifying individual and contextual characteristics and mechanisms that contribute to a better understanding of public support for governmental efforts to ensure a reasonable standard of living for the unemployed.

It is possible to find analyses of whether this public support is influenced by contextual determinants, such as a country's actual unemployment rate (Fraile and Ferrer 2005). However, there has been no research that analyses the role the *perceived* magnitude of unemployment plays in the formation of public support for such welfare provisions. An argument for this contribution is based on the idea that people's reactions to a situation are influenced by their *subjective* perceptions (rather than macro-level situations directly). It gives grounds to further investigate whether public support for welfare provisions for the unemployed is higher or lower when the *perceived* magnitude of unemployment is larger.

To summarise, our key research question is: *Whether and how is the perceived magnitude of unemployment associated to the public attitudes towards governmental responsibilities to the unemployed? Does this relationship hold after controlling for potential confounding factors?*

1. CHARACTERISTICS INFLUENCING PEOPLE'S ATTITUDES TOWARDS GOVERNMENTAL RESPONSIBILITIES TO THE UNEMPLOYED

1.1. *Rationality, values and beliefs: individual-level explanations*

The perceived magnitude of unemployment: forgotten though important?

According to Thomas and Thomas (1929, p.572), people's reactions are affected not only by social realities, but are also strongly influenced by the meanings ascribed to those situations: "If men define situations as real, they are real in their consequences." In the context of our research, this suggests that the perceived magnitude of unemployment might contribute to the formation of people's attitudes towards governmental responsibilities to the unemployed. In addition, people's understanding of reality passes through filters such as personal

observation, communication with others, media (Saunders 2002) or policy makers. Thus, people might perceive the magnitude of unemployment to be larger or smaller than it is in reality, depending on how these filters work. It is quite often the case that perceptions of social reality are erroneous (Eveland and Glynn 2008; Kunovich 2013), which in this context, would mean that there is a mismatch between actual and perceived unemployment rates. To strengthen our argument that there is a rationale for looking at the perceived magnitude of unemployment and its effect on attitudes towards governmental responsibilities to the unemployed, we use as a reference, literature illustrating that people's perceptions of certain actual macro-conditions in their country had an effect on their attitudes, beliefs, or behaviours. For example, Kunovich (2013) concluded that misperceptions of unemployment led to changes in political and economic attitudes, while actual rates of unemployment were not directly related to changes in people's attitudes. Moreover, other authors found that the perceived economic performance of the country has an effect on people's democratic attitudes (Chu, Bratton, Lagos, Shastri and Tessler 2008). In addition, there are effects found of perceived corruption in people's support for democratic ideals (Chang and Kerr 2009) and in people's trust in institutions as well as attitudes towards gift giving (Melgar, Rossi and Smith 2010). Finally, Allgood and Walstad (2009) reported the effects of perceived financial literacy on financial behaviour.

Two competing explanations of how subjective estimations of the magnitude of unemployment contribute to attitudes towards welfare provisions for the unemployed (see also van Oorschot and Meuleman 2012a) could be developed. That is, when people perceive a large magnitude of unemployment, they might be either *less* supportive or *more* supportive of the government's responsibilities to the unemployed. Expectations for a negative relation are based on the idea that people might associate unemployment with a burden, i.e. high costs and taxes resulting in a reduced household income. The expectations for a positive relation are based on the idea that some people might become more empathetic towards the unemployed when they associate perceptions of high unemployment with an increase in their personal risk of becoming unemployed themselves. During times that are perceived to be generally harsh, this personal association weakens the social stigma attached to the unemployed. These competing expectations are advantageous because they reduce the risk of confirmation bias and take different theoretical explanations into account (Pleggenkuhle-Miles and Peng 2009). We developed these two competing explanations using literature on the effects of the actual unemployment rates, which does not really distinguish between actual social realities and their perceptions (they are assumed to be the same). However, our position is that these are not necessarily the same, and thus we support an observation made by Kunovich (2013): "A great deal of social research examines macro-micro linkages—for example, by examining how economic conditions influence people's political attitudes and behavior. Rarely, however, do researchers directly examine the mechanisms linking macro-level conditions to individual-level attitudes and behavior, the accuracy of people's perceptions of the larger context, or the consequences of their misperceptions <...> Misperceptions of unemployment, moreover, lead to changes in people's economic and political attitudes."

A central aim of this paper is to determine whether a positive or negative relationship exists between the perceived magnitude of unemployment and attitudes towards welfare provisions for the unemployed; and whether this relationship holds after controlling for individual and country level characteristics that might make the relationship (partially) spurious. In order to do so, the next step is to grasp which individual- and context-level characteristics could be confounding factors. For this reason, we should study those determinants that potentially influence *both* the perceived magnitude of unemployment *and* people's attitudes towards welfare for the unemployed. As the characteristics affecting the perceived magnitude of unemployment have not been previously analysed in the literature, in the following sections we review only those characteristics that were found to influence individual attitudes towards governmental responsibilities to the unemployed.

Individual-level explanations from the existing literature

Literature suggests that public attitudes towards their government's responsibilities to the unemployed might be influenced by values and beliefs, and self-interest (Hasenfeld and Rafferty 1989; Taylor-Gooby 2004). The *self-interest* argument states that welfare attitudes depend on an individual's personal stake in welfare provisions. Such stakes relate to different social positions, the most notable of which are: 1) (potential) beneficiary, 2) resource competitor, 3) tax payer, and 4) welfare producer (Goul Andersen et al. 1999; Sihvo and Uusitalo 1995). As for *values* and *beliefs*, they are grouped into: 1) political ideology, 2) political trust, and 3) attitudes towards the unemployed.

From the *(potential) beneficiary's* perspective, individuals with a higher risk of experiencing unemployment, are more sympathetic towards the unemployed (Fraile and Ferrer 2005). Empirical evidence shows that those with a higher risk of experiencing unemployment are usually women, younger and older people, immigrants, those with lower educational levels, and those from ethnic minority backgrounds (Fraile and Ferrer 2005; Svallfors 1997; van Oorschot and Meuleman 2013). It is expected that due to higher self-interest, these vulnerable groups will have more positive attitudes towards their government's provisions for the unemployed. Additionally, objective unemployment risk might be mediated by perceived unemployment risk (van Oorschot and Meuleman 2013): a higher objective risk of being unemployed leaves people more uncertain about their own employment security and, as a result, more sympathetic towards the unemployed. The labour market position of individuals and their family members might also matter: the unemployed and their relatives will also be more supportive of government efforts to aid the unemployed (Andress and Heien 2001; van Oorschot and Meuleman 2013). A similar effect should also apply among the previously unemployed: they should also have more positive attitudes towards the welfare state's responsibilities to the unemployed. According to the Eurobarometer (2007), the unemployed is the group most concerned about unemployment (57%), a figure that further supports the idea that this group might be more sympathetic to the jobless.

Resource competitors, people receiving other types of social benefits (e.g. retirement and disability benefits), might be less supportive of a government's responsibilities to the

unemployed than those receiving unemployment benefits. This is expected due to the fact that welfare resources are scarce: the increased expenditure on one type of social benefit may reduce expenditure on other benefits (Jeene et al. 2011). Therefore, needy groups may compete for social benefits. In broader terms, this approach is based on the realistic group conflict theory (Campbell 1965). As all groups would prefer to be 'haves' rather than 'have-nots', they strive to obtain scarce resources by preventing their competitors from getting them (Forsyth 2009). In addition, two extensions to this perspective are proposed. First, resource competition should be especially visible when other social benefits are the *main source* of household income. Second, the resource competitor's negative view of governmental responsibilities to the unemployed might "transmit" to other household members – despite their own employment status, they might be affected by their general household financial situation.

From the *tax payer's* perspective, those with higher incomes may be less willing to pay more taxes, and therefore, their support for the government's responsibilities to the unemployed could be weaker (Sihvo and Uusitalo 1995). A possible explanation for this might be that people with higher income also have a lower risk of becoming unemployed, as they are likely to have higher levels of education.

Finally, *welfare producers*, people employed in the public sector, are expected to be more positive towards government provisions in general (Hoel and Knutsen 1989; Svallfors 1997, 2004). For public sector employees, a generous welfare state implies a larger public sector, which means more jobs, increased career possibilities, and more opportunities to receive economic benefits. Thus, welfare producers are expected to have positive attitudes towards the government's responsibilities to the unemployed.

Regarding values and beliefs, welfare attitudes are rooted in broader value systems (Blekesaune 2007). Here *political ideology* plays a role: people with a left-wing stance and beliefs rooted in egalitarian values are more supportive of welfare programs in general, and especially of targeted schemes (Blekesaune and Quadagno 2003; Edlund 2006; Sihvo and Uusitalo 1995) such as unemployment benefits. Moreover, citizens' attitudes towards the extent of a government's responsibilities might depend on their level of *political trust*. According to Hetherington (2004), people are more likely to support the welfare delivery system if they also deem it to be trustworthy. Furthermore, Hetherington argues that political trust becomes a more prominent factor when governments seek public support for redistributive spending that entails widely distributed costs and narrowly concentrated benefits, such as spending on unemployment benefits, than when governments seek public support for distributive spending with widely distributed costs and benefits.

Continuing with *attitudes towards the unemployed*, those with a strong conviction that the unemployed are personally responsible for their situation because they simply avoid working, might be less supportive of generous state intervention (van Oorschot and Meuleman 2013). Moreover, welfare support attitudes might be affected by the perceived living standards of the unemployed. According to van Oorschot and Meuleman (2012a), people will be more supportive when they see a clear need to improve poor living standards of unemployed people. Yet, if people believe that welfare support adequately ensures reasonable living standards for the unemployed, they will be less supportive of such governmental responsibilities.

1.2. *The role of national contexts*

Actual unemployment rates

Previous research has often focused on *actual* unemployment rates as a contextual determinant of individual attitudes towards welfare provisions for the unemployed. The empirical findings suggest that the effects of the *actual* unemployment rate are ambiguous: there are justifications for both positive and negative effects on public support for the unemployed.

A *positive relationship* may be expected during times of higher unemployment, as people are more worried about becoming unemployed themselves or are concerned about their family members experiencing redundancy (Blekesaune and Quadagno 2003; Larsen 2006). A positive relationship may also be expected when unemployment is generally high in the whole country (Eardley and Matheson 1999; Gallie and Paugam 2002) and society is less likely to consider the unemployed as being personally responsible for their situation. However, there are also arguments for expecting *negative effects* of a high unemployment rate on public attitudes towards governmental responsibilities to the unemployed. According to Galbraith (1992), a high unemployment rate signals higher costs and an increased tax burden. In the harsh economic times that coincide with high unemployment, people are less willing to share with others due to their own reduced household income (Sihvo and Uusitalo 1995). Finally, in such situations, policy makers and the media contribute to attitudes towards and perceptions of the unemployed by keeping people informed of necessary cutbacks (Sihvo and Uusitalo 1995). As a result, during economic downturns and related periods of high unemployment, people can become more reluctant to support needy groups.

Fraile and Ferrer (2005) suggest also paying attention to the salience and persistency of unemployment; these features are expected to inform consciousness of unemployment's magnitude. Salient and persistent unemployment can stimulate feelings of economic and employment vulnerability and may also lessen the stigma associated with unemployment, making people more sociotropic, regardless of whether or not they are employed. This insight encourages analyses of a country's average unemployment rate over the last several years (calculated from the annual unemployment rates) to illustrate the persistency of unemployment. More broadly, this topic belongs to the discussion on lagged effects. According to Norpoth and Yantek (1983, p.786), "[e]conomic conditions whose effects on public opinion persist over a long time call for a different response than those whose effects are quickly forgotten." Additionally, we take long-term unemployment rates into account to illustrate the salience of unemployment (i.e. length of the unemployment trap).

Other contextual determinants

As individuals do not live in a vacuum, the general environment created by the country in which they reside, such as its social welfare system and economy, might also influence their attitudes towards governmental responsibilities to the unemployed. First, attitudes towards the government's responsibilities to the unemployed might be affected by the *social welfare system* of their country. These systems can be represented by: total social expenditure, (van Oorschot et al. 2012; Svallfors 2004) social expenditure on unemployment, generosity of

unemployment benefits (Fraile and Ferrer 2005; Fridberg and Ploug 2000), and specificities of the unemployment benefit systems (Larsen 2005; Eardley and Matheson 1999; van Oorschot and Meuleman 2013). More precisely, social expenditure size may have opposing effects on individuals' attitudes towards welfare support for the unemployed. A positive effect might be expected in welfare states with higher levels of spending that promote their social legitimacy (van Oorschot et al. 2012). There, people might be convinced that governments should play a role in supporting the unemployed. However, a negative effect might also be expected (Svallfors 2004) in countries with lower unemployment expenditures. In these countries, people might have more positive attitudes towards the government's responsibilities to the unemployed as they might think that the currently unemployed receive too little resources and, therefore, should be given more support. Regarding the generosity of unemployment benefits, Fraile and Ferrer (2005) expect to find stronger support for less spending on unemployment protection when a country's unemployment benefits become more generous (i.e. higher replacement rates). This happens because "generosity of social transfers implies a higher degree of taxes, and hence a lack of enthusiasm from employed citizens towards paying taxes in order to finance unemployment benefits" (Fraile and Ferrer 2005, p.464). Regarding the specificities of unemployment benefit systems, Eardley and Matheson (1999) state that in means-tested and tax funded systems, the unemployed are more stigmatised due to the fact that this kind of system heightens confrontations between beneficiaries and tax payers, when compared to systems based on insurance principle and related contributions. Therefore, it is expected that the former system would generate negative effects on public attitudes towards the government's responsibilities to the unemployed.

Second, attitudes towards the government's provisions for the unemployed might depend on such *economic factors* as GDP per capita and real GDP growth (Blekesaune 2007; van Oorschot and Meuleman 2012a; van Oorschot and Meuleman 2013). The economic situation of a country might affect people's attitudes in opposite directions. For example, an economic downturn may either strengthen solidarity or foster reluctance to support the unemployed by paying taxes during difficult economic times (van Oorschot and Meuleman 2012a). Moreover, measures of income distribution inequality are also included. Van Oorschot and Meuleman (2012a) found that people have more positive attitudes towards the government's responsibilities to the unemployed in countries with higher income quintile share ratios (S80/S20) is higher, i.e. where the total income is more unequally distributed between the 20% of the population with the highest income (top quintile) and the 20% of the population with the lowest income (bottom quintile).

2. DATA MANAGEMENT AND METHODOLOGY

2.1. Data

Individual data used is derived from the European Social Survey (ESS 2008)¹. This survey round is especially relevant as it has a special module for welfare attitudes. Our study focuses on

¹ Obtained from face-to-face interviews with people 15 years-old and older, who were selected by random probability sampling. Requiring a response rate of at least 70% ensures data reliability.

23 European countries: Belgium (BE), Bulgaria (BG), Switzerland (CH), the Czech Republic (CZ), Germany (DE), Denmark (DK), Estonia (EE), Spain (ES), Finland (FI), France (FR), the United Kingdom (GB), Greece (GR), Hungary (HU), Ireland (IE), Latvia (LV), the Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovenia (SI) and Slovakia (SK). Unfortunately, comparable contextual data was not available for Croatia, Cyprus, or Ukraine. Lithuania did not have available design weight. The Austrian fieldwork period was completely out-of-sync with the other countries. Therefore, we could not include these five countries into our analyses. Contextual data was collected from Eurostat, the OECD (Organisation for Economic Co-Operation and Development) and the IMF (International Monetary Fund).

2.2. Variables

Dependent variable

Attitudes towards the government's responsibilities to the unemployed are measured by the question: "How much responsibility do you think governments should have to ensure a reasonable standard of living for the unemployed?" The response rubric was a scale from 0 to 10, where 0 indicated that ensuring a reasonable standard of living for the unemployed "should not be governments' responsibility at all," and 10 indicated that it "should be entirely governments' responsibility." Evidence from previous research suggests that this measure is equivalent to and adequate for cross-national comparisons employing ESS data (Staerklé, Svallfors and van Oorschot 2007).

Independent individual-level variables

The key variable of our research interest, the perceived magnitude of unemployment, was measured by the question: "Of every 100 people of working age in [country] how many would you say are unemployed and looking for work?"² Originally, this question had 11 answer categories: 1 – "0-4," 2 – "5-9," 3 – "10-14," 4 – "15-19," 5 – "20-24," 6 – "25-29," 7 – "30-34," 8 – "35-39," 9 – "40-44," 10 – "45-49," and 11 – "50 or more." After inspecting missing data within and across countries, this variable was recoded into five categories: 1 (rather small): 0-9, 2 (medium): 10-19, 3 (large): 20-39, 4 (very large): 40 or more, and 5 (item non-response).³ We use this recoded variable in a multilevel analysis as a group of dummy variables (so as to be able to keep in item non-response).

A set of indicators was used to measure theoretical concepts presented in the literature review. 1) The main source of income in the household was used to identify *resource competitors*. 2) Data regarding gender, age groups, highest level of education, ethnic

² A drawback of this variable is that it cannot be known which population the respondents consider when they answer this question. That is, people might be better aware of the unemployment situation in their surroundings (e.g. family, friends, community, region) rather than in the whole country, and thus every respondent might base their answer on different populations. Moreover, it cannot be known whether some of the respondents takes into account the inactive labor population (e.g. students, housewives) when they provide the relative numbers of unemployed job seekers.

³ Note: the labels do not reflect any qualification of actual unemployment rates, since, for example, a real rate of 9% is not considered 'rather small' in any social debate.

background, immigration status, perceived unemployment risk, employment status as indicated by main activity for the last seven days, and previous unemployment for longer than three months was used to identify (*potential*) *beneficiaries*. 3) *Tax payers* were identified by responses indicating an individual's feelings about their current household income (subjective income). 4) Welfare producers were identified by their responses to questions regarding their employment sector. 5) Political orientation and ideology was measured by responses to two statements capturing egalitarian values: "large differences in people's incomes are acceptable to properly reward differences in talents and efforts," and "for a society to be fair, differences in people's standard of living should be small." 6) Data reflecting personal trust in parliament, political parties and politicians was used to measure *political trust*. 7) Responses to "most unemployed people do not really try to find a job" and "what do you think overall about the standard of living of people who are unemployed?" provided a measure of *attitudes towards the unemployed*. Due to limited space, tables containing operationalisation and descriptive statistics of individual-level variables were not included in this article but are available upon request.

Independent contextual-level variables

At level-2, the main focus is on *actual unemployment rates* presented by Eurostat. A seasonally adjusted, harmonised unemployment rate (2008) and the long-term (unemployed for more than 12 months) unemployment rate for 2008 are used due to the argument that unemployment salience impacts attitudes about welfare for the jobless. Averages of five years are also introduced for seasonally adjusted, harmonised unemployment rates (2004-2008) and long-term unemployment rates (2004-2008). Averages might be a better measure than "one-shot" indicators as they help to capture lagged effects, avoid possible short-term fluctuations, and better reflect persistent unemployment. In line with the theoretical section, 13 other characteristics are also used to present a country's *economic conditions* (four variables) and *social welfare systems* (nine variables). Once again, due to space limitations, a table with operationalisation and descriptive statistics was not included but is available upon request.

Missing data

Analysis showed that the variable representing the perceived magnitude of unemployment has 3,914 missing values overall (8.7%), of which 98.4% are "don't know." This could still be tolerable but Bulgaria (28%), Spain (23.9%), Portugal (29.5%), and Romania (30.9%) had too many missing values to be list-wise-deleted. Overall, there were four variables⁴ missing more than 5% of data when each country was analysed separately. Therefore, item non-response dummies⁵ were created for these variables. Only "don't know" and "refusal" are included in the non-response item dummies, while system missing cases are removed from further

⁴ Political orientation, perceived unemployment risk, and the main source of household income.

⁵ Since the dominating missing value type is "don't know" and the key questions are basically related to attitudes and perceptions, *multiple imputation would not be valid*: by imputing, those people who do not have an opinion would be forced to become opinionated. Furthermore, it would artificially assume that their attitudes towards governmental responsibilities to the unemployed are affected by individual factors, which those people do not actually contemplate.

analysis. The latter were obtained due to technical surveying reasons rather than surveyed people, and they are minor (less than 1% in all variables). Patterns of system missing data were also investigated, but none were identified. Finally, the remaining missing level-1 data that were not discussed here were list-wise-deleted.

2.3. Statistical approach

Selecting individual-level control variables

This research aims to investigate whether the perceived magnitude of unemployment makes an “independent” contribution to the formation of public attitudes, or whether this contribution fades away once other relevant characteristics are introduced. As mentioned before, such analysis makes sense only if we account for those characteristics that possibly affect a variation of *both* people’s perceptions of the magnitude of unemployment *and* their opinions about governmental responsibilities to the unemployed. In other words, we seek to introduce only those variables that are potential confounding factors of both aforementioned key variables, revealing that the relationship we are interested in was (partially) spurious. *We do not seek to explain as much variation as possible* in our dependent variable; this has been done in previous research. Rather, we opt for a more parsimonious model by focusing entirely on the relationship between perceptions of the unemployment magnitude and attitudes towards governmental responsibilities to the unemployed.

Therefore, the first step will be to see whether those variables affecting people’s attitudes towards government responsibilities to the unemployed that we identified in the literature are also related to the perceived magnitude of unemployment. This is done by running bivariate analyses. When both independent and dependent variables are continuous, the Pearson correlation coefficient is employed; when the independent variable is categorical, Eta is used to measure association (IBM 2011). A “threshold” rule is applied and in the following multilevel analysis, the only independent variables retained are those that: 1) are statistically significantly associated with the perceived magnitude of unemployment at $p < .05$ level, and 2) demonstrate association strength not lower than ± 0.1 , meaning that there is at least a small effect (Field 2009). Based on the results of bivariate analyses, the following variables are *not used* in multilevel analyses: age, ethnic minority background, immigration status, employment sector, and a belief that large differences in income are acceptable. In the meantime, the following variables *are introduced* into the multilevel analyses as potential confounding factors of both attitudes towards governmental responsibilities to the unemployed (the dependent variable), and the perceived magnitude of unemployment (the independent variable): the main source of household income, gender, highest level of education, perceived unemployment risk, employment status, previously unemployment lasting longer than three months, subjective income, political orientation, a belief that a fair society requires small differences in standards of living, political trust, perceived living standards of the unemployed, and a belief that most unemployed people do not really try to find a job.

Multilevel analysis

Since the study focused on individual and contextual characteristics, a multilevel analysis is applied where individuals are nested within countries (Raudenbush and Bryk 2002). In total, 41,146 individuals from 23 European countries are analysed. The intraclass correlation coefficient (ICC) is calculated to obtain the proportion of the total variance of the dependent variable accounted for by contextual characteristics (Snijders and Bosker 2012). Raw b-coefficients are used, and all continuous and ordinal variables are grand-mean centred.

An explanatory analysis begins by discussing six models containing only individual-level variables. Models are built addressing theoretical concepts presented in the literature review. Then we proceed with models containing both individual and country-level characteristics. A drawback of multilevel analysis, when it is used in cross-country studies, is that only a limited number of level-2 cases can be entered simultaneously (van Oorschoot and Meuleman 2013). As a rule of thumb, for each ten units, only one variable should be introduced (Field 2009). Thus, having 23 countries allows for only two simultaneous contextual variables. Overall, the study proceeds with separate analyses containing all chosen individual-level variables and *only one* contextual variable (first step). As a second step, multivariate analyses containing *two* contextual variables and all chosen individual characteristics are run concurrently, i.e. combining those contextual variables that demonstrated significant effects in bivariate analyses performed in the first step.⁶

Weighting

Design weight (*dweight*) is applied at level-1 analyses to correct for over- and under-representation of people present due to limitations of the sample design (not all individuals from the population were given equal chances to participate in survey). Population weight (*pweight*) is applied to compensate for different population sizes when any pan-European statistics are calculated. However, *pweight* is not applied in a multilevel analysis, because multilevel models account for individual clustering in higher country units. If *pweight* were used for weighting, this would result in an artificial modification of country characteristics without a theoretical basis (e.g. amplifying unemployment rate in Germany and reducing it in Slovakia), which would affect the results. Contextual effects should be equally valuable in each country regardless of population size.

3. RESULTS

3.1. Descriptive analyses

We start by presenting some descriptive findings that set the scene for multilevel analysis. These general interest points contribute to a better understanding of and a more complete picture of the research context, the foundation on which we built our main research question.

An analysis of aggregated country-means shows that overall, attitudes towards governmental provisions for the unemployed are rather positive: the pan-European mean across countries is 6.92 on a 0-10 scale. Moreover, the variation of country-means is rather

⁶ In total, there will be two such models (Model 7 and Model 8).

moderate: they range from 5.92 in Slovakia to 8.52 in Latvia (Figure 1, horizontal axis). It implies that people living in different European countries are rather pro-statist regarding this issue.

Concerning the perceived magnitude of unemployment, if the aggregated country-means are considered (Figure 1, vertical axis), rather large attitudinal variation can be found. They range from 2.76 in Switzerland to 7.44 in Hungary, on a 1-11 scale. The pan-European mean across countries is 4.96. Moreover, there are certain patterns. Mostly, perceptions of the unemployment magnitude are highest in the eastern (Hungary, Latvia, Bulgaria, Romania) and southern (Portugal, Spain, Greece) European countries. However, perceptions of the unemployment magnitude were also quite high in Anglo-Saxon countries (Ireland and the United Kingdom) and Belgium. Almost unanimously, the lowest perceptions are in the Nordic countries (Norway, Denmark, Finland, and Sweden), the Netherlands, and Switzerland. The only “exceptional island” in this group is the Czech Republic, where perceptions of the unemployment magnitude are low.

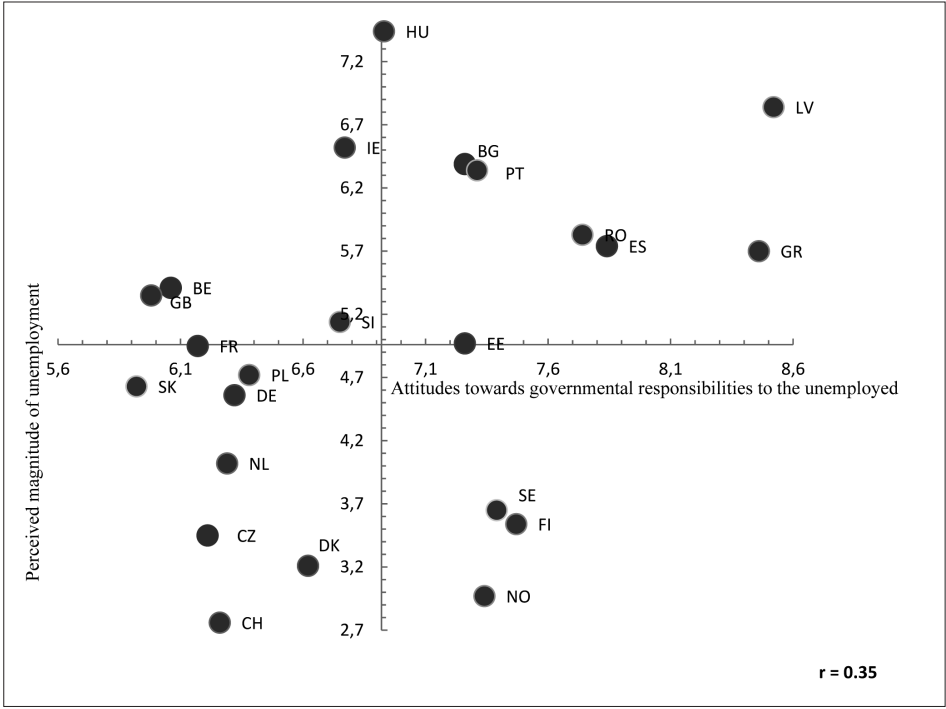


FIGURE 1. Relationship between attitudes towards governments’ responsibilities to the unemployed and the perceived magnitude of unemployment

Note: country-specific attitudes towards governments’ responsibilities to the unemployed (0-10 points scale) and the perceived magnitude of unemployment (original 1-11 point scale) were weighted by *dweight* and were aggregated. The axes were re-centred so that a crossing would represent the cross-country means of both variables and weighted by *dweight* and *pweight*. Source: own calculations based on ESS 2008.

Another, perhaps more intuitive, way of reporting the perceived magnitude of unemployment is based on the categories mentioned in the questionnaire. Such figures show that 19.5% of Europeans believe the unemployment rate is 0-9%, while almost 30% perceive it to be 10-19%. Respectively, 28.4% and 14.7% of Europeans think that the unemployment rate is 20-39% or even above 40%. A wide range of these perceptions was also observed *within* countries (Annex Table 1).

As for the relationship between the perceived magnitude of unemployment and attitudes towards governmental responsibilities to the unemployed, Figure 1 suggests a positive relationship at the aggregate level ($r=0.35$). A positive association implies that in countries where the magnitude of unemployment is perceived as larger, public support for welfare provisions for the unemployed is stronger. This relationship holds especially true in the eastern and southern European countries group. However, this is a preliminary finding as this relationship is yet to be tested amongst individuals and thus poses a possible ecological fallacy.

Finally, analysis showed that for Europe as a whole there is a clear mismatch between the average *perceived* unemployment rate⁷ and the *actual* average unemployment rate: 21.8%⁸ versus 6.3%, respectively. Clearly, people believe that unemployment is much higher than it is reported in the official statistics (Eurostat). This mismatch is also present in *each* individual country (Annex Figure 2). Moreover, at the aggregate level, perceived and actual unemployment rates are not perfectly correlated ($r=0.59$), suggesting that their variations are not the same and that these two variables are not proxies of each other.

3.2. Explanatory analyses

Individual-level analysis

An “empty model” (Table 1: Model 0) is run first. It shows that around 11% of the total variance in the attitudes towards governmental responsibilities to the unemployed can be explained by country-level characteristics. Although differences between individuals within a country are obviously more important, this variation at the country level is too notable to be ignored. This conclusion provides grounds for using a multilevel model.

Six models containing only the selected individual-level characteristics⁹ follow the multilevel analysis. Model 1 shows that those who perceive the magnitude of unemployment

⁷ In this particular case, we use the perceived unemployment rate as a synonym for the perceived magnitude of unemployment.

⁸ For a more intuitive comparison with an actual unemployment rate, we calculated approximate perceived unemployment rates from 11 original categories. For this purpose, we took “middle points” from each answer category, assigned these points to the individual respondents and then aggregated at the country level. For example, for those respondents who originally chose “20-24% unemployed and looking for work,” we took a “middle point” of 22. The only exception made was for the last original category (“50% or more unemployed and looking for work”): for all individuals who chose this category, we assigned a “left-point” of 50. As this category is much broader than the other ten, we decided not to choose a “middle-point” (the perceived unemployment rate of 75% seems less plausible than the one of 50%).

⁹ Analyses do not include those individual-level variables that are not sufficiently statistically related to the perceived unemployment magnitude.

TABLE 1. Multilevel analysis containing individual-level variables

	Model0: Empty model	Model1: Problem perception	Model2: Resource competitor	Model3: (Potential) beneficiary	Model4: Tax payer	Model5: Political ideology & trust	Model6: Attitudes to unemployed
FIXED PARAMETERS (b-coefficients)							
Intercept	6.91*** (0.15)	6.69*** (0.15)	7.33*** (0.17)	7.09*** (0.18)	6.98*** (0.18)	7.28*** (0.17)	7.03*** (0.15)
Perceived magnitude of unemployment (ref. cat.: rather small, 0-9)							
-Medium (10-19)		0.07* (0.03)	0.06 (0.03)	0.03 (0.03)	0.02 (0.03)	-0.01 (0.03)	0.03 (0.03)
-Large (20-39)		0.26*** (0.03)	0.23*** (0.03)	0.16*** (0.04)	0.14*** (0.04)	0.10*** (0.03)	0.18*** (0.03)
-Very large (40+)		0.64*** (0.04)	0.58*** (0.04)	0.47*** (0.04)	0.43*** (0.04)	0.39*** (0.04)	0.45*** (0.04)
-Item non-response		0.61*** (0.05)	0.54*** (0.05)	0.46*** (0.06)	0.43*** (0.06)	0.36*** (0.05)	0.41*** (0.05)
Main source of household income (ref.cat.: unemployment benefits)							
-Wage/salary			-0.70*** (0.08)	-0.36*** (0.09)	-0.26*** (0.09)	-0.31*** (0.09)	-0.27*** (0.08)
-Pensions			-0.43*** (0.08)	-0.25*** (0.10)	-0.18 (0.10)	-0.24* (0.10)	-0.18* (0.08)
-Other social benefits			-0.07 (0.11)	0.06 (0.11)	0.04 (0.11)	-0.02 (0.11)	-0.02 (0.10)
-Other income			-0.84*** (0.09)	-0.51*** (0.10)	-0.41*** (0.10)	-0.42*** (0.10)	-0.34*** (0.09)
-Item non-response			-0.91*** (0.15)	-0.63*** (0.15)	-0.55*** (0.15)	-0.52*** (0.15)	-0.55*** (0.14)
Gender (ref.cat.: male)				0.12*** (0.02)	0.11*** (0.02)	0.07*** (0.02)	0.06*** (0.02)
Education levels (ref.cat.: none/primary)							
-Lower secondary				-0.03 (0.05)	-0.01 (0.05)	-0.03 (0.04)	
-Upper secondary/post-secondary				-0.09* (0.04)	-0.05 (0.04)	-0.04 (0.04)	
-Tertiary				-0.13** (0.05)	-0.07 (0.05)	-0.02 (0.04)	
Perceived unemployment risk (ref.cat.: not at all likely)							
-Not very likely				-0.04 (0.03)	-0.06 (0.03)	-0.06 (0.03)	-0.07* (0.03)
-Likely				0.06 (0.04)	0.02 (0.04)	0.01 (0.04)	0.01 (0.04)
-Very likely				0.30*** (0.05)	0.24*** (0.05)	0.20*** (0.05)	0.13*** (0.05)
-No longer working and not looking for work				0.29*** (0.04)	0.27*** (0.04)	0.24*** (0.04)	0.22*** (0.03)
-Item non-response				0.08 (0.08)	0.05 (0.08)	-0.03 (0.07)	-0.01 (0.07)
Employment status (ref.cat.: unemployed)							
-Employed				-0.14* (0.06)	-0.10 (0.06)	-0.09 (0.06)	

	Model0: Empty model	Model1: Problem perception	Model2: Resource competitor	Model3: (Potential) beneficiary	Model4: Tax payer	Model5: Political ideology & trust	Model6: Attitudes to unemployed
-Retired				-0.09 (0.07)	-0.05 (0.07)	-0.08 (0.07)	
-Student				-0.18* (0.07)	-0.13 (0.07)	-0.11 (0.07)	
-Other				-0.11 (0.07)	-0.08 (0.07)	-0.08 (0.06)	
Previously unemployed (ref.cat.: no)				0.23*** (0.03)	0.10*** (0.03)	0.18*** (0.03)	0.12*** (0.03)
Subjective income					-0.17*** (0.02)	-0.12*** (0.02)	-0.08*** (0.02)
Political orientation (ref.cat.: left)							
-Centre						-0.28*** (0.03)	-0.18*** (0.03)
-Right						-0.37*** (0.03)	-0.23*** (0.03)
-Item non-response						-0.06 (0.04)	0.01 (0.04)
Living standard differences should be small						-0.38*** (0.01)	-0.35*** (0.01)
Political trust						0.02*** (0.01)	0.04*** (0.01)
Unemployed avoid working							-0.30*** (0.01)
Perceived living standards of unemployed							-0.17*** (0.01)
RANDOM PARAMETERS (variance components)							
σ^2 (individual level variance) ^a	4.48*** (0.03)	4.44*** (0.03)	4.40*** (0.03)	4.37*** (0.03)	4.35*** (0.03)	4.20*** (0.03)	3.99*** (0.03)
τ_{00} (country level variance)	0.55*** (0.16)	0.50*** (0.15)	0.52*** (0.15)	0.49*** (0.15)	0.47*** (0.14)	0.41*** (0.12)	0.31*** (0.09)
R ² (individual level), cumulative % ^b	Not applicable	0.89	1.79	2.46	2.90	6.25	10.94
R ² (country level), cumulative % ^b	Not applicable	8.37	4.71	10.20	13.87	24.87	43.19
MODEL SUMMARY							
Deviance statistics	178600	178178	177891	177550	177425	175908	173772
d.f. for χ^2 distribution (compared to M0)	Not applicable	4	9	23	24	29	24
Deviance difference (compared to M0) ^c	Not applicable	422	709***	1050***	1175***	2692***	4828***
d.f. for χ^2 distribution (compared to previous model)	Not applicable	4	5	14	1	5	Not applicable
Deviance difference (compared to previous model) ^c	Not applicable	422	287***	341***	125***	1517***	Not applicable
N (level-1)	41146	41146	41146	41146	41146	41146	41146

* $p < .05$, ** $p < .01$, *** $p < .001$. ^a Statistical significance was calculated based on calculations of confidence intervals (Bosker and Snijders 2012, p. 101). ^b Calculations based on Hox (2010), p. 71. ^c Statistical significance was calculated based on Bosker and Snijders (2012), p. 97. Note: numbers in parentheses represent standard errors. Estimation method: Restricted Maximum Likelihood (RML). Weighted by *dweight*.

as medium, large or very large are more positive in their attitudes towards welfare for the unemployed than those with rather low perceptions of the unemployment magnitude. On average, people with medium perceptions are more supportive by 0.07 points ($p < .05$), people with high perceptions – by 0.26 points ($p < .001$), and those with very high perceptions by 0.64 points ($p < .001$) on a 10 point scale, when compared to those with rather low perceptions. This finding supports an expectation for a positive relationship. However, the contribution of this variable to the explained variance of attitudes towards governmental responsibilities to the unemployed is rather modest: at the individual-level, it explains around 1%.

After introducing a group of self-interest related variables (Models 2-4), the average positive relationship between the perceived unemployment magnitude and attitudes towards the government's provisions for the unemployed decreases (which suggests that the initially found key relationship was partially spurious, but remains statistically significant). Of all the self-interest perspectives, the (potential) beneficiary indicators named in Model 3 are the ones mostly responsible for this partial spuriousness. When analysed in more detail, the coefficients of the perceived magnitude of unemployment were found to decrease mostly after introducing the perceived unemployment risk, suggesting that this variable is indeed an important confounding factor in our analysis. Additionally, in relation to variance at the individual-level, the resource competitor indicators (Model 2) explain a higher share of the variance (0.9%) when compared to (potential) beneficiary (0.67%) (Model 3) and tax payer indicators (0.44%) (Model 4).

When individual values and beliefs are introduced (Models 5-6), the average relationship between the perceived unemployment magnitude and attitudes towards the government's provisions for the unemployed remains positive and statistically significant. On average, individuals with high and very high perceptions of the magnitude of unemployment are more supportive by 0.18 points ($p < .001$) and 0.45 points ($p < .001$) respectively, when compared to those with rather low perceptions (Model 6). Finally, values and beliefs are the biggest contributors to an explanation of individual-level variation in attitudes towards governmental responsibilities to the unemployed. Models 5 and 6 explain more than 8% of this variance, of which 3.35% is attributable to political ideology and trust, and 4.69% to attitudes towards the unemployed.

The final remark is related to explained variance at country-level: just by introducing individual-level characteristics, around 43% of the country-level variance is explained. This means that nearly half of the 11% variation at the country level is due to differences in the composition of countries' populations, and is not related to other contextual characteristics.

To summarise the main findings thus far, the models presented show that after controlling for all relevant confounding individual characteristics, on average, people are more supportive of the government's responsibilities to the unemployed when they perceive the unemployment magnitude to be larger.¹⁰ As the main focus of this study is not to explain the effects of other

¹⁰ Interestingly, those people who opted for "don't know" while answering a question about the unemployment magnitude, are somewhat similar in their support levels to those with very high perceptions of the unemployment magnitude. This finding illustrates that "don't knows" is a meaningful group that should not be simply ignored in the research.

individual characteristics, they are not discussed separately, but it should be noted that the significant effects found at the individual level are in line with the literature review.

Context-level analysis

As the next step, various measures of actual unemployment rates are separately included in Model 6. Only long-term unemployment rates (2008) and average long-term unemployment rates (2005-2008) have statistically significant negative effects on attitudes towards the government's responsibilities to the unemployed: when the rates increase by one percentage point, the mentioned attitudes decrease by 0.19 ($p < .05$) and 0.12 ($p < .05$) points, respectively. Then, continuing with measures of other economic conditions, only real GDP growth rate (2008) has a significant negative effect: on average, people living in countries with better current economic performance, have more negative attitudes towards governmental responsibilities to the unemployed ($b = -0.08$, $p < .10$). Regarding contextual variables representing the social welfare systems of the countries, no significant effects ($p > .10$) are found.

TABLE 2. Multilevel analysis containing long-term unemployment rates and real GDP growth rate (controlled for all individual-level variables from Model 6)

	Model 7: Multivariate analysis	Model 8: Multivariate analysis
FIXED PARAMETERS (b-coefficients)		
Long-term unemployment rate, 2008	-0.15^o(0.08)	
Average long-term unemployment rate, 2004-2008		-0.10 (0.06)
Real GDP growth rate (percentage change on previous year)	-0.05 (0.04)	-0.04 (0.04)
RANDOM PARAMETERS (variance components)		
τ_{00} (country level variance)	0.23*** (0.07)	0.23*** (0.07)
R ² (country level), cumulative % ^a	57.85	57.85
R ² difference (% compared to Model6)	14.66	14.66
MODEL SUMMARY		
Deviance difference (compared to Model6) ^b	7.00***	6.00***
N (level-1)	41146	41146
N (level-2)	23	23

^o $P < .10$, * $P < .05$, ** $P < .01$, *** $P < .001$. ^A CALCULATIONS BASED ON HOX (2010), P. 71. ^B Statistical significance was calculated based on Bosker and Snijders (2012), p. 97. Note: entries represent coefficients obtained from two separate multilevel models. In both models, the real GDP growth rate is first entered concurrently with the long-term unemployment rate (Model 7) and later with the average long-term unemployment rate (Model 8). In both Model 7 and Model 8, individual characteristics are kept constant (taken from Model 6). Numbers in parentheses represent standard errors. Estimation method: Restricted Maximum Likelihood (RML). Weighted by *dweight*.

Finally, we combine two contextual variables that demonstrated significant effects in "one-by-one" analyses above (Table 2). Namely, the effect of the long-term unemployment rate (Model 7) and average long-term unemployment rate (Model 8) are analysed respectively, when controlled for real GDP growth rate in both models. The initially found negative effect of the long-term unemployment rate becomes weaker but remains significant ($b = -0.15$, $p < .10$), while the effect of the real GDP growth rate disappears, suggesting the latter was

spurious. Moreover, Model 7 explains around 15% of variation at level-2. Model 8 shows that when combined, both the real GDP growth rate and the average long-term unemployment rate (2005-2008) do not retain significant effects. It should be noted that coefficients of the perceived magnitude of unemployment that were obtained in Model 6, remain unchanged in both Model 7 and Model 8. Therefore, in Table 2, we report only those results relevant to contextual level findings.

By completing the multilevel analyses, we fully answer the key research question: *on average, people are more supportive of the government's responsibilities to the unemployed when they perceive larger magnitude of unemployment. This positive relationship remains statistically significant after controlling for potential confounding factors at the individual and contextual levels.*

4. CONCLUSION AND DISCUSSION

In this paper, a relationship between the perceived magnitude of unemployment and attitudes towards the government's responsibilities to the unemployed was investigated for the first time. Descriptive analyses suggest that European welfare states have rather high legitimacy in their support for the unemployed, as overall attitudes towards governmental responsibilities to the unemployed are positive. However, there is considerable variation in people's perceptions of the magnitude of unemployment *across* and *within* countries. Furthermore, in all of the analysed countries, people perceive the unemployment rate to be higher than it really is.

Explanatory analysis suggests that, on average, the larger the perceived magnitude of unemployment, the more positive public attitudes towards governmental responsibilities to the unemployed are, even after controlling for selected individual and country level characteristics. Recalling two competing explanations provided in section 1.1 of this article, it seems that people's attitudes towards governmental responsibilities to the unemployed are influenced more by feelings of empathy and solidarity (positive relation) than by negative opinions stimulated by associating unemployment with a burden (negative relation).

Contextual level analysis also reveals some insights. On average, in countries with a higher long-term unemployment rate, people have *more negative* attitudes towards governmental provisions for the unemployed. This finding is particularly interesting if it is compared with the contribution of the *perceived* magnitude of unemployment. To recap, on average, those people who perceive the magnitude of unemployment as large or very large are *more* supportive of the government's responsibilities to the unemployed. These findings stimulate thoughts on the *mechanisms* by which actual unemployment rates affect people's attitudes towards welfare provisions to the unemployed, as well as on the *mechanisms* by which people filter actual unemployment situations via their personal reality prisms. For now, it is clear that people do not "objectively" perceive actual unemployment rates; there are pipe-mechanisms via which people arrive at their final judgments. This is in line with Kunovich (2013), who proposes to "directly examine the mechanisms linking macro-level conditions to individual-level attitudes and behaviour." The actual unemployment rate and the perceived

unemployment rate seem to be connected by a complicated “chain” of intermediaries such as media and other “epistemological devices” (McLeod et al. 1995).

Overall, the research suggests that public perceptions of the unemployment magnitude are a dark horse as they prove to influence people’s attitudes towards governmental responsibilities to the unemployed. Moreover, this research stimulates some further thoughts: *first*, in principle, people’s perceptions could be socially constructed; and *second*, that it is interesting to know how they are constructed, e.g. via such “reality filters” as personal observation, communication with others, media (Saunders 2002), policy actors, and stakeholders, etc.

It is also important to address the limitations of this research. In this multilevel analysis, it was necessary to put constraints on the number of covariates entered at level-2. This constraint did not allow us to control for all of the possible relevant contextual determinants. A potential endogeneity problem should also be addressed. It is probable that public attitudes towards governmental responsibilities to the unemployed also influence the perceived magnitude of unemployment. If this were true, then the analysis would lack order validity. One would need rather longstanding, and currently unavailable, time series data to verify this. This issue of potential endogeneity is particularly common in research on welfare attitudes, which is strongly driven by analysing the interplay between people’s subjective perceptions and various attitudes.

In the future, it would be necessary to investigate in more detail which individual characteristics and contextual factors trigger stronger perceptions of the unemployment rate (to reveal mechanisms). Moreover, the causes of a discrepancy between actual unemployment rate and the perceived unemployment rate could be analysed. Besides individual characteristics, the possible contextual effects of mass media communication (possible interactions) could also be taken into account. According to Price (1988, pp.664-665), “news reporting, political advertisement, opinion polling, public demonstration, and protest allow coordinated mass attention, thought, and expression across a large and heterogeneous group to be brought to bear upon a shared problem or issue.” Finally, the use of regional data, when available, could capture potentially different contextual effects across regions, as the unemployment rate may differ substantially between country regions. Moreover, from a multilevel analysis perspective, regional analysis would result in higher statistical power due to a higher number of units at this level.

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ANNEXES

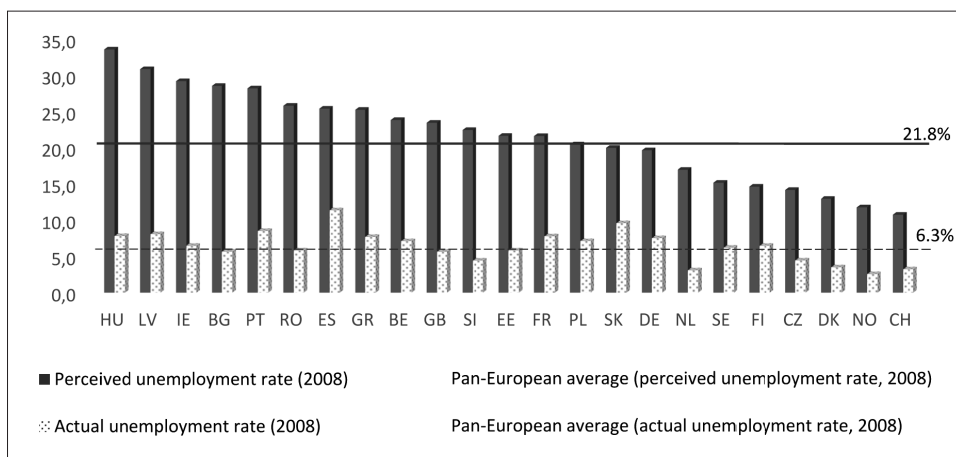
ANNEX TABLE 1. Percentage distribution of the perceived magnitude of unemployment *within* and *across* countries

	Rather small (0-9)	Medium (10- 19)	Large (20-39)	Very large (40+)	Item non- response
BE ^a	13.3%	30.9%	36.2%	16.7%	3.0%
BG ^a	6.7%	19.8%	29.7%	22.8%	21.0%
CH ^a	58.4%	21.1%	12.1%	3.1%	5.3%
CZ ^a	36.3%	36.9%	14.1%	4.2%	8.5%
DE ^a	25.0%	35.2%	24.2%	12.9%	2.7%
DK ^a	52.4%	21.5%	13.3%	7.0%	5.7%
EE ^a	16.6%	31.5%	26.8%	13.9%	11.1%
ES ^a	8.4%	26.4%	27.2%	18.8%	19.2%
FI ^a	38.1%	34.2%	19.1%	3.5%	5.1%
FR ^a	17.4%	32.8%	34.9%	11.9%	3.1%
GB ^a	18.4%	27.0%	33.5%	17.6%	3.4%
GR ^a	8.3%	30.0%	38.6%	18.7%	4.4%
HU ^a	4.4%	15.8%	33.8%	41.1%	5.0%
IE ^a	4.8%	25.1%	39.1%	29.1%	2.0%
LV ^a	3.1%	19.8%	39.9%	28.1%	9.1%
NL ^a	33.5%	32.6%	22.2%	7.9%	3.9%
NO ^a	55.2%	24.0%	15.3%	3.7%	1.8%
PL ^a	17.3%	32.4%	29.1%	10.7%	10.5%
PT ^a	8.5%	19.4%	25.4%	23.6%	23.2%
RO ^a	12.6%	19.3%	26.5%	18.7%	22.9%
SE ^a	43.2%	29.2%	20.4%	5.6%	1.6%
SI ^a	16.1%	29.5%	29.0%	14.7%	10.8%
SK ^a	20.6%	35.0%	24.1%	12.7%	7.6%
Pan-European distribution^b	19.5%	29.6%	28.4%	14.7%	7.8%

^a cases were weighted by *dweight*. ^b cases were weighted by *dweight* and *pweight*.

Source: compiled by the authors based on ESS 2008.

ANNEX FIGURE 2. Perceived and actual unemployment rates (%)



Note: the perceived unemployment rate was converted from 1-11 point scale into approximate percentage points. Source: own calculations from ESS 2008 and the Eurostat.